

Title (en)
Motorised dental flosser.

Title (de)
Kraftgetriebene Zahnseideneinrichtung.

Title (fr)
Porte-soie dentaire motorisé.

Publication
EP 0554623 A2 19930811 (EN)

Application
EP 92311648 A 19921221

Priority
US 81272591 A 19911223

Abstract (en)
A lighted electric dental flosser (10) with a rechargeable battery compartment includes a motor casing (22), interchangeably individualized head units (60), and disposable plastic floss tips (120) that snap mount within the hinged end of the head unit. The floss tips (120) exhibit bidirectional flossing motion provided from a motion translation system including an eccentric cam (70), a yoke (80), and an output shaft (100) with a cam follower mechanism that follows a generally Z-shaped tracking surface with a vertical track component and a horizontal track component enabled by the yoke to complete the resulting "Z" movement. The floss tips (120) have a molded-in filament (126) and are molded from a shock absorbing substance which absorbs the vertical component of the "Z" shaped motion upon the application of pressure to the filament thereby outputting horizontal motion until the filament passes through the contact area between two teeth. In an automatic mode, an infrared sensor (112,114) in the head activates the motor when the line of sight between infrared sensors is broken by the filament approaching a contact-area (2) between two teeth. <IMAGE>

IPC 1-7
A61C 15/04; C12N 9/16; C12N 15/55; C12P 7/40

IPC 8 full level
A61C 15/04 (2006.01)

CPC (source: EP US)
A61C 15/047 (2013.01 - EP US)

Cited by
EP1675522A4; WO2016074703A1

Designated contracting state (EPC)
AT BE DE DK ES FR GB IT NL SE

DOCDB simple family (publication)
EP 0554623 A2 19930811; EP 0554623 A3 19930901; AU 3040092 A 19930624; CA 2085916 A1 19930624; CA 2085916 C 19950117; JP H05253251 A 19931005; JP H0790027 B2 19951004; US 5279314 A 19940118

DOCDB simple family (application)
EP 92311648 A 19921221; AU 3040092 A 19921223; CA 2085916 A 19921221; JP 34454592 A 19921224; US 81272591 A 19911223